CLAIMS

1. – 58. (Canceled)

59.   (New) A dual mode transceiver comprising:

a linear modulation receiver adapted to receive linearly modulated signals from a first

remote station over a first downlink channel having a given bandwidth, said linear

modulation receiver being operative to receive constant envelope modulated signals

from a second remote station over a second downlink channel having the same

given channel bandwidth, wherein the constant envelope signals are an

approximation of said linearly modulated signals; and

a transmitter that transmits constant envelope modulated signals over an uplink channel

to said first and second remote stations.

60.   (New) The dual mode transceiver of claim 59 wherein said first remote station is a
satellite relay station.

61.   (New) The dual mode transceiver of claim 60 wherein said second remote station is a
terrestrial base station.

62.   (New) The dual mode transceiver of claim 59 wherein said constant envelope modulated
signals are Gaussian Minimum Shift Keyed (GMSK) modulated signals.

63.   (New) The dual mode transceiver of claim 59 wherein said linearly modulated signals
are Offset Quadrature Phase Shift Keying (OQPSK) signals.

64.   (New) The dual mode transceiver of claim 59 wherein the first and second downlink

channels are TDMA channels and wherein said constant envelope modulated signals and said

linearly modulated signals are TDMA signals.

65.   (New) The dual mode transceiver of claim 64 wherein the first downlink channel and the

second downlink channel have time slots of equal duration and containing the same number of

bits.

66.   (New) The dual mode transceiver of claim 65 wherein the frame period of the first

downlink channel is longer than the period of the second downlink channel.

67.   (New) The dual mode transceiver of claim 66 wherein the linearly modulated signals are

received in periodic time slots with a first spacing, and wherein said constant envelope

modulated signals are received in periodic time slots with a second spacing less than said first

spacing such that the average bit rate of the linearly modulated signals is less than the average

bit rate of the constant envelope modulated signals.

68.   (New) A method of transmitting and receiving signals at a dual mode transceiver:

receiving linearly modulated signals from a first remote station over a first downlink

channel having a given bandwidth with a linear modulation receiver configured to

receive linearly modulated signals;

receiving constant envelope modulated signals form a second remote station over a

second downlink channel having the same given bandwidth with said linear

modulation receiver, wherein the constant envelope signals are an approximation of

said linearly modulated signals; and

transmitting constant envelope modulated signals to the first and second remote

stations.

69.   (New) The method of claim 68 wherein said first remote station is a satellite relay station.

70.   (New) The method of claim 69 wherein said second remote station is a terrestrial base

station.

71.   (New) The method of claim 68 wherein said constant envelope modulated signals are

Gaussian Minimum Shift Keyed (GMSK) modulated signals.

72.   (New) The method of claim 68 wherein said linearly modulated signals are Offset

Quadrature Phase Shift Keying (OQPSK) signals.

73.   (New) The method of claim 68 wherein the first and second downlink channels are

TDMA channels and wherein said constant envelope modulated signals and said linearly

modulated signals are TDMA signals.

74.   (New) The method of claim 73 wherein the first downlink channel and the second downlink channel have time slots of equal duration and containing the same number of bits.

75.   (New) The method of claim 74 wherein the frame period of the first downlink channel is longer than the period of the second downlink channel.

76.   (New) The method of claim 75 wherein the linearly modulated signals are received in periodic time slots with a first spacing, and wherein said constant envelope modulated signals are received in periodic time slots with a second spacing less than said first spacing such that the average bit rate of the linearly modulated signals is less than the average bit rate of the constant envelope modulated signals.